

**STATEMENTS OF INTEREST
NUMBER W912HZ-XX-SOI-XXXX
PROJECT TO BE INITIATED IN 2010**

Project Title: Landscape Pattern – Ridge, Slough, and Tree Island Mosaics

Responses to this Request for Statements of Interest will be used to identify potential investigators for a project to be funded by the U.S. Army Corps of Engineers Jacksonville District which provides support for Comprehensive Everglades Restoration Plan (CERP) program in terms of fully implementing a system-wide landscape monitoring design that assesses long-term attributes of ridges, sloughs, and tree islands in the Greater Everglades Wetlands ecosystem. Approximately \$206,000 is expected to be available to support this project for one (1) year. Additional funding may be available for follow on work in subsequent fiscal years to the successful Recipient/Awardee.

Background:

The Water Resources Development Act (WRDA) of 2000 authorized the Comprehensive Everglades Restoration Plan (CERP) as a framework for modifications and operational changes to the Central and Southern Florida Project needed to restore the south Florida ecosystem. Provisions within WRDA 2000 provided for specific authorization for an adaptive assessment and monitoring program. The CERP Monitoring and Assessment Plan (MAP) was developed as a framework for measuring and understanding system responses to CERP, determining how well CERP is meeting its goals and objectives, and indentifying opportunities for improving the performance of CERP where needed.

Throughout the current managed system, the pre-drainage, patterned mosaic of sawgrass ridges, sloughs and tree islands in the Greater Everglades Wetlands ecosystem has been substantially altered or reduced largely as the result of human alterations to the historic ecological processes that sustained the landscape patterns. The general goals of CERP restoration are to stem, and possibly reverse this degradation of the ridge and slough and tree island landscape through redirecting flows now released unused to the ocean and the gulf into these critical habitats. The MAP presented an overarching monitoring framework for guiding restoration efforts throughout the entire process and requires not only a comprehensive assessment of the current state of the ecosystem and assessment of restoration endpoints (targets), but ongoing monitoring and evaluation throughout the process that will aid the implementing agencies in optimizing operational procedures and project designs. This one year project integrates with on-going ridge and slough work to provide a complete integrated assessment of the ridge, slough, and tree island system. Full implementation of this monitoring design will not only enable a holistic assessment of the current ecosystem but will provide the data needed for adaptive management and evaluation model validation.

Brief Description of Anticipated Work:

This project should be designed to address the needs identified in the Greater Everglades wetlands performance measures: (1) Wetland Landscape Patterns – Ridge-Slough Community Sustainability; and (2) Wetland Landscape Patterns - Marl Prairie Cape Sable Sparrow Habitat. Specifically, the project will address the Greater Everglades Wetland Landscape and Plant Community Dynamics hypotheses: (1) ridge and slough micro-topography in relation to organic soil accretion and loss; (2) ridge and slough landscape pattern in relation to microtopography; and (3) plant community dynamics along elevation gradients as water depths and thus hydroperiods change.

The objectives of the proposed research effort include:

Objective 1: To determine extant reference conditions for each of the performance measures listed above (including variability of those measures in time and space).

Objective 2: To establish present status of landscape performance measures throughout the central Everglades, particularly in areas of historic ridge-slough landscape patterning, identify spatial and temporal trends of those performance measures, and quantify their relationships to the present hydrologic regime.

Objective 3: To detect unanticipated changes in ecosystem structure and processes that result from hydrologic management or manipulation, CERP restoration activities, or climatic variation

Objective 4: To provide data in support of scientific studies of inter-relationships among vegetation, microtopography, and hydrologic regime that may provide insight into the causes of unanticipated ecosystem responses.

Methods

Successful applicants should have expert knowledge of the Everglades ecosystem; ridge, slough, and tree island community dynamics; and a record that demonstrates applied research and monitoring experience with both of these topics. The candidates should have prior experience with mapping vegetation features from aerial photographs, conducting aerial and ground surveys of vegetation communities, determining the relationship between vegetation structure and water depth, and utilizing the Generalized Random-Tessellation Stratified approach (GRTS). The candidates will be required to prepare a Statement of Work and Work Plan regarding the research to be conducted. The candidates will also be required to submit three (3) quarterly status reports and one (1) annual report each year of the contract to provide updates on the implementation of a system-wide landscape monitoring design for ridges, sloughs, and tree islands in the Greater Everglades Wetlands ecosystem.

Materials Requested for Statement of Interest/Qualifications:

Please provide the following via e-mail attachment to:

Benjamin.T.Smithhart@usace.army.mil (Maximum length: 2 pages, single-spaced 12 pt. font).

1. Name, Organization and Contact Information
2. Brief Statement of Qualifications (including):
 - a. Biographical Sketch,
 - b. Relevant past projects and clients with brief descriptions of these projects,
 - c. Staff, faculty or students available to work on this project and their areas of expertise,
 - d. Any brief description of capabilities to successfully complete the project you may wish to add (e.g. equipment, laboratory facilities, greenhouse facilities, field facilities, etc.).

Note: A proposed budget is NOT requested at this time.

Review of Statements Received: Based on a review of the Statements of Interest received, an investigator or investigators will be invited to prepare a full study proposal. Statements will be evaluated based on the investigator's specific experience and capabilities in areas related to the study requirements. Additionally, the evaluation method and selection criteria for research and development awards must be: (1) The Technical merits of the proposed research and development; and (2) Potential relationship of the proposed research and development to the Department of Defense missions.

Please send responses or direct questions to:

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Timeline for Review of Statements of Interest: Review of Statements of Interest will begin after the SOI has been posted on the CESU website for 10 working days.